

**REMARKS**

Claims 1, 4-14 and 17-26 are pending in the subject application. Claims 1 and 14 are the base claims and are amended above to further clarify that the recited "single character indicator" is outside of and separate from a substantive message (i.e., not part of a message header, etc.). Support for these amendments is found at least on page 6 and in FIG. 2 of the specification as originally filed. For example, see reference nos. 48 and 61 in FIG. 2 indicating the claimed single character indicators, and reference no. 24 indicating the data connection for client requests and server messages which are separate from the single character indicators 48, 61. No new matter is introduced by way of these amendments. Acceptance is respectfully requested.

Claims 1, 4, 5, 10-14, 17, 18 and 23-26 have been rejected under § 102(e) as being anticipated by U.S. Patent No. 6,721,286 to Williams, *et al.* In Williams, sessions are opened by issuing an Open request which can either be active or passive. A passive Open request puts the session protocol into the Listen state during which it passively listens for a request to open a session from a remote host. The active Open request attempts to establish a session with a specific session protocol port at a remote host. See Col. 16, lines 49-55 and FIG. 6.

For any one session, the session protocol maintains no more than one transport message connection, but it may maintain more than one transport stream connection with the remote host. The session protocol multiplexes all additional Message Channels over the single message connection. All additional Stream Channels correspond directly to additional transport stream connections. The physical Message connection is never closed during the lifetime of the session (see Col. 18, lines 18-44). If the session protocol's Message connection fails, it closes all its transport connections, cancels all its Listens and destroys the session control block. Note the session protocol will not close the session if its Stream transport connection fails. The reason for this is that a Message connection is required while a Stream connection is only optional.

If one side of a session crashes, the session may be left with the other side still active. This situation is termed a "half-open session". To ensure that half open sessions/connections do not remain open and consume resources, the session protocol sends keep-alive messages during long periods of inactivity in the session. If there has been no activity on any channel within the session for longer than ten minutes, the session protocol sends a keep-alive message (Null

message) to the other side over the Message connection. If the Message connection fails, the session protocol receives a disconnect notification from the underlying transport and the session is terminated. See Col. 18, line 61 through Col. 19, line 12.

In Col. 22 of Williams, the message layout and format is specified.. In particular, every session protocol message is prefaced with a 20-byte session protocol header. In bytes 0 and 1 of the header, there is a 16-bit Control Bits field. Bit no. 5 of the Control Bits field is described as a Null (keep-alive) bit. The combination of control bits with the fifth bit set to 1 and all other bits therein set to 0 forms the keep-alive message. This is not a single character indicator (but a 16-bit wide field) in contrast to the claimed invention.

Further, this keep-alive control bit is part of the message header and is not the ". . single character indicator . . outside of and separate from a substantive message" as claimed in the present invention. What's more, the purpose of the keep-alive message of Williams is to ensure that half open sessions/connections do not remain open and consume resources. See Williams, Col. 19, lines 1-5. In contrast, the present invention single character indicator is used to maintain a healthy connection and not to address a half open session/connection situation as in Williams.

Base Claims 1 and 14 as now amended make clear the foregoing patentable distinctions over the cited art. The pertinent claim language now recites ". . the single character indicator being outside of and separate from a substantive message." As stated above, specification page 6 and FIG. 2 as originally filed support this newly added claim limitation. According to MPEP § 2163(I)(B) ". . there is no *in haec verba* requirement" and "newly added claim limitations [can] be supported in the specification through express, implicit or inherent disclosure", which is the case here. Further, MPEP § 2173.05(i) provides that a claim limitation may be added in order to exclude the characteristics of the prior art. As such, for all these reasons, base Claims 1 and 14 as now amended are believed to recite the present invention in terms which are not anticipated by Williams, *et al.* Claims 4, 5 and 10-13 depend from base Claim 1, and Claims 17, 18 and 23-26 depend from base Claim 14. Thus each of these dependent claims inherit the patentable distinction over Williams as argued in the respective base Claims 1 and 14. Accordingly, the § 102(e) rejection is believed to be overcome and withdrawal of this rejection of Claims 1, 4, 5, 10-14, 17, 18 and 23-26 is respectfully requested.

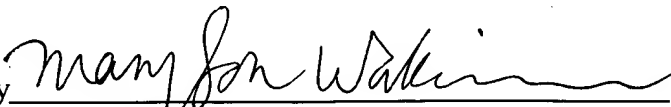
Claims 6-9 and 19-22 have been rejected under 35 U.S.C. § 103 as being unpatentable over Williams, *et al.* '286. Claims 6-9 are dependent on base Claim 1, and claims 19-22 are dependent on base Claim 14. Thus, the foregoing arguments and patentable distinctions apply here. The cited art, Williams, does not make obvious the ". . . maintaining the connection . . . transmitting a single character indicator . . . from the server to the client at short intervals; . . . the single character indicator being outside of and separate from a substantive message", as recited in base Claims 1 and 14. Instead, Williams uses control bits in the message header of all messages to ensure that half open sessions do not remain open and consume resources as argued above. One of ordinary skill in the art would not be motivated to use Williams' 16-bit wide control bit field for maintaining the healthy connection in the present invention or change the 16-bit message header portion to a single character separate from the message as in the present invention. Accordingly, the § 103 of Claims 6-9 and 19-22 is believed to be overcome and withdrawal of this rejection is respectfully requested.

### CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

Mary Lou Wakimura

Registration No. 31,804

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 4/14/04